



Indiana Department of Environmental Management

*Protecting Hoosiers and Our Environment Since 1986*



# Stormwater Permits and Industrial Stormwater

Indiana Department of Environmental Management  
Office of Water Quality  
Surface Water & Operations Branch  
Wetlands and Stormwater Section  
Stormwater Program

Randy Braun, Section Chief  
Wetlands and Stormwater Programs  
[Rbraun@idem.IN.gov](mailto:Rbraun@idem.IN.gov)



## General Permit Conversion Process

- In response to U.S. EPA, IDEM will move from general permits by promulgated rule to administratively issued master general permits
- Reason for change:
  - Potential conflicts with approval process for administrative rules
- This process will be taken for each of the stormwater permits in the order below:
  - Construction Site Run-off
  - Municipal Separate Storm Sewer Systems (MS4s)
  - Industrial Stormwater Run-off



## General Permit Conversion Process

- Perspective on current stormwater rules:
  - Rules last updated in 2003
- Draft permits will be based on:
  - Experiences in implementing 327 IAC 15-5, 327 IAC 15-6, and 327 IAC 15-13
  - U.S. EPA:
    - ◆ 2017 Construction General Permit
    - ◆ MS4 General Permit and Remand Rule requirements
    - ◆ Industrial Multi-Sector General Permit



## General Permit Conversion Process

- Overview of IDEM procedure to issue a permit:
  - Draft each general permit
  - Submit the draft general permit to U.S. EPA for review
  - Assemble an advisory group
  - Incorporate changes into the draft permit
  - Submit a final draft to U.S. EPA for final review and concurrence (no objection)
  - Hold public meeting(s)
  - Public notice the final permit



## General Permit Conversion Process

- Status of process:
  - Construction Site Run-off Permit and MS4 Permit:
    - ◆ Draft submitted to U.S. EPA
    - ◆ U.S. EPA issued a non-objection letter
    - ◆ Multiple advisory group meetings
    - ◆ Permits public noticed
    - ◆ Comments received
    - ◆ Permit have been sent to U.S. EPA
  - Industrial Stormwater Permit:
    - ◆ Finalizing draft for initial submittal to U.S. EPA



## Industrial Stormwater

- Current implementation of 327 IAC 15-6
- Eligibility to obtain coverage:
  - Facilities that operate under specific Standard Industrial Classification (SIC) codes or meet the narrative requirements identified in 327 IAC 15-6-2
  - Discharges are associated with a point source
- Exclusions:
  - The operator of a facility demonstrates:
    - ◆ A condition of no exposure exists
    - ◆ A point source (no discharge exclusion) exists



## Industrial Stormwater

- No exposure exclusion:
  - Certification by the operator that industrial materials and activities are protected by a storm-resistant shelter to prevent exposure to rain, snow snowmelt, and run-off
  - Only applies facility wide
- No discharge exclusion:
  - The operator of a facility demonstrates that run-off from the facility does not discharge through a point source





## Industrial Stormwater Coverage

- Obtain coverage under 327 IAC 15-6 to discharge stormwater:
  - Submit a notice of intent (NOI)
  - Initial NOI submittals begin coverage on the day IDEM receives the application
  - Renewal NOI submittals continue coverage from the previous permit cycle



## Industrial Stormwater Requirements

- Compliance schedule (first permit year):
  - Develop and implement a stormwater pollution prevention plan (SWP3)
  - Conduct annual sampling
  - Conduct quarterly visual monitoring
  - Submit a stormwater monitoring report (State Form 53590):
    - ◆ First year is an assessment tool in developing the SWP3 and a baseline for sampling
    - ◆ Subsequent years: comparison of data
  - Submit a SWP3 checklist (State Form 51287) within first 365 days
  - Submit an annual report (State Form 54185)



# Industrial Stormwater Requirements

## Stormwater pollution prevention plan:

- Purpose:
  - Identify potential pollutant sources
  - Evaluate potential for pollutants to be “exposed” to stormwater
  - Develop and implement practices and measures to reduce or eliminate the pollutant exposure
  - Implement treatment controls to eliminate or reduce pollutant discharges
  - Re-evaluate effectiveness of existing preventative treatment practices and measures



# Industrial Stormwater Requirements

## Stormwater pollution prevention plan:

- Components:
  - Responsible staff
  - Site plan
  - Soils map
  - Area map
  - Pollutant sources
  - Stormwater quality measures selected
  - Annual employee training
  - Quarterly visual inspections
  - Written preventative maintenance plan



## Industrial Stormwater Requirements

- Compliance schedule (second through fifth permit year):
  - Continue to implement the stormwater pollution prevention plan (SWP3) and modify based on industrial operations and sampling
  - Conduct annual monitoring and submit results
  - Conduct quarterly visual monitoring
  - Based on sampling results and observations make modifications to operations and/or install appropriate stormwater management measures
  - Submit an annual report
- Renew Permit:
  - Permit coverage is five (5) years
  - Submit 90 days prior to expiration of permit



# Industrial Stormwater Requirements

## Monitoring:

- Each outfall designated on the NOI
  - Similar outfalls
- Collect a sample annually
- Based on permit start date
  - Example:
    - Permit begins on April 15, 2017
    - First Sample Taken Between April 15, 2017 and April 14, 2018
- Sample from a measureable rain event of .1 inch or greater (at least 72 hours from previous measureable rain event)
- Sample during first 30 minutes of the discharge at the outfall



# Industrial Stormwater Requirements

## Monitoring:

- 327 IAC 15-6-7 (c)(4) requires:
  - Comparison of sampling results from one year to the next
  - Parameter reductions
  - Modification of operations and/or installation of measures if reductions are not being achieved



## Industrial Stormwater Requirements

- **Monitoring:**
  - Oil and grease
  - CBOD5 (Carbonaceous Biochemical Oxygen Demand)
  - COD (Chemical Oxygen Demand)
  - TSS (Total Suspended Solids)
  - TKN (Total Kjeldahl Nitrogen)
  - Total Phosphorus
  - pH (taken in the field)
  - Nitrate plus nitrite nitrogen
  - Any potential pollutants associated with industrial activity exposed to stormwater



## Industrial Stormwater Requirements

- **Monitoring:**
  - U.S. EPA benchmarks:
    - ◆ Provided by IDEM as guidance of reasonable goals in achieving a reduction in parameters
    - ◆ IDEM recommends the facility operator utilize these benchmarks to assess management of the facility
    - ◆ Discharges above the benchmarks indicate that operations at the facility warrant corrective action



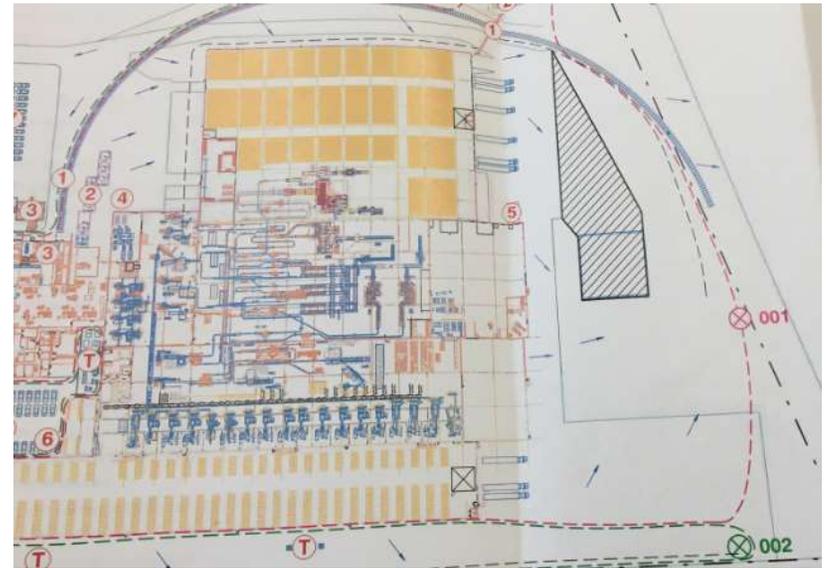
## Industrial Stormwater Discharges

- Industrial stormwater and MS4 entities:
  - A facility discharging to an MS4 conveyance or within an MS4 may be:
    - ◆ Subject to violations of local illicit discharge ordinances
    - ◆ Required to submit sampling results or other facility information to the local MS4 upon request



## Industrial Stormwater Regulatory Inspections

- Review stormwater pollution prevention plan:
  - Plan is being utilized to manage facility operations
  - Plan is being updated in relation to sampling, quarterly visual inspections, and operations at the facility
  - Facility improvements, including installation of stormwater measures or a change in operational activities
- Review sampling data
- Review employee training records and program implementation
- Walk the facility with on-site representatives





# Industrial Stormwater Regulatory Inspections

- Key Elements:
  - Assess facility drainage system, including conveyance systems, inlets, and outfalls
  - Evidence of visible erosion and sediment discharges





# Industrial Stormwater Regulatory Inspections

- Key Elements:
  - Evidence of past spills
  - Management of stockpiles (salt, sand, etc.)





# Industrial Stormwater Regulatory Inspections

- Key Elements:
  - Internal floor drains that are associated with industrial activities that are not sealed and do not discharge to sanitary
  - Vehicle and equipment maintenance areas, including fueling, maintenance bays, and vehicle wash areas





# Industrial Stormwater Regulatory Inspections

- Key Elements:
  - Material handling, including loading/unloading areas





# Industrial Stormwater Regulatory Inspections

- Key Elements:
  - Proper containment areas for drums, tanks, containers, material storage, including run-off management, curbing, diking, secondary containment, shelters, etc.
  - Secondary containment as required by 327 IAC 2-10





# Industrial Stormwater Regulatory Inspections

- Key Elements:
  - Spill prevention and response procedures
  - Management of waste utilizing proper storage techniques





# Industrial Stormwater Regulatory Inspections

- Key Elements:
  - Vehicle tracking of soil, industrial materials, etc.
  - Run-off management





# Industrial Stormwater Regulatory Inspections

- Key Elements:
  - Maintenance of installed measures, outfalls, etc.





# Industrial Stormwater Regulatory Inspections

- Indication of potential problems:
  - Poor facility management
  - Significant change in facility operations that changes the quantity or nature of pollutants discharged
  - Exceedance of benchmarks without initiation of corrective action or a plan to take action





# Industrial Stormwater Regulatory Inspections

- Indication of potential problems:
  - Stormwater pollution prevention plan out of date
  - Failure to perform sampling and/or quarterly monitoring
  - Unauthorized release or discharge
  - Control measures are not properly operated and maintained





# Questions?

Indiana Department of Environmental Management  
Office of Water Quality  
Surface Water and Operations Branch  
Wetlands and Stormwater Section  
Stormwater Program

Randy Braun, Section Chief  
Wetlands and Stormwater Programs  
[Rbraun@idem.IN.gov](mailto:Rbraun@idem.IN.gov)  
317-234-3980